Abstract. *The aim of this paper is to examine the evolution of corporate finance theories in order to outline already established and future trajectories. Compared with the earliest theories developed in the field (which mainly focused on the capital structure irrelevance), specialist literature has been enriched with wide-ranging debates on identifying the implications of financial decisions on the firm's value, corporate governance, market strategies, etc. The existing body of theories on corporate finance has provided analytical frameworks vital for grounding, understanding and implementing firms' capital structure policies. However, the theories developed have certain limitations, which pose challenges for further research. After a brief description of the main theories developed in the field, the study presents the drivers that prompted various researches in the area of firms' financing. The study suggests that the evolution of corporate finance theories bears the mark of the dominant trend in contemporary science – designing new theories that overturn tradition.*

Keywords: capital structure, corporate finance theories, trade-off theory, pecking order theory, agency theory, capital structure and factor-product markets, market timing theory.

CORPORATE FINANCE THEORIES. CHALLENGES AND TRAJECTORIES

Mihaela Brîndușa TUDOSE
"Gh. Zane" University of Iaşi
67, Ştefan cel Mare şi Sfânt Blvd., Iaşi, Romania
e-mail: brindusatudose@gmail.com

Management & Marketing
Challenges for the Knowledge Society
(2012) Vol. 7, No. 2, pp. 277-294

1. Introduction

Studies on financing have sought to provide explanations of the manner in which firms build their debt-equity mix in order to finance investments. Acknowledging the fact that, at present, there is no single, universally valid theory of corporate finance, we can nevertheless highlight certain influential theories in the field.

The first challenge in the field dates back to the end of the 1950s with the launching of the idea of the irrelevance of the firms' capital structure (Modigliani and Miller, 1958). In the 1960s-1970s, research was oriented towards the analysis of benefits and costs deriving from leverage; the objective was to study the way in which firms manage to balance the bankruptcy costs with the benefits of tax shields, derived from taking on debt (Kim, 1978; Kraus and Litzenberger, 1973; Scott, 1976); these works were grouped under the generic headline of static trade-off theory, whose underlying notion is that firms set a target debt ratio which they aim to achieve. In the mid-1970s, research turned to agency costs, focusing on two categories of conflicts of interest: between managers and shareholders, on the one hand, and between creditors and stakeholders, on the other (Jensen and Meckling, 1976; Myers, 1977). In the first half of the 1980s, the emphasis was largely placed on information asymmetries among investors and firms, outlining the pecking order theory (Myers, 1984; Myers and Majluf, 1984). The starting point in laying the grounds for the new theory was the assumption that – less informed – investors need an incentive to invest in risky securities; consequently, the idea emerged that internally generated funds can represent the best financing option, whereas the use of own external capital would be the last financing alternative. In the latter half of the 1980s, financial theories explain the corporate finance structure based on the factors associated with industrial strategy and corporate organisation (Brander and Lewis, 1986; Glazer, 1989; Maksimovic, 1988; Titman and Wessels, 1988). Research during the 1990s was marked by the focus on the disjunctive-hypothetical reasoning, with researchers being interested in providing arguments in favour of or against the two theories proposed, i.e. trade-off theory and pecking order theory, respectively. In the early 2000s a new version of the theory was developed, stating that capital structure is a consequence of the necessity of market timing (Baker and Wurgler, 2002; Hovakimian et. al, 2001; Huang and Ritter, 2005); this new dynamic approach to firms' capital structure, which contravenes to the static trade-off theory gave rise to a new wave of controversies.

The idea put forward 10 years ago, asserting that *"there is no universal theory of the debt-equity choice, and no reason to expect one"* (Myers, 2001), reoriented research to the level of empirical analyses of the structure of corporate finance. Accordingly, in the research area, the first decade of the new millennium has been marked by researchers' efforts to provide empirical evidence in support of previously formulated theories.

Although the debates in the field mainly focus on the issue of the firm's financing based on the two broad types of funds (i.e. own funds and borrowed funds), nonetheless they are not confined to stereotypical approaches and instead are

strikingly diverse. Without intending to embark on a diatribe, we will offer an overview of the logic behind these debates. By rationally filtering groundbreaking research, one can acknowledge that the arguments in favour or against are equally fertile, as the theories have arisen from one another and have exerted mutual influence.

The main objective of the paper is to examine the evolution of theories of corporate finance and to highlight the trajectories in research. The specific objectives are the following: to identify the corporate finance theories, to emphasise evolving elements, to highlight particular research design approaches, to establish the drivers which prompted further research and to capture trends in order to drive research towards new potential ideas.

The underlying method of this paper was the comparative analysis of the most representative works in the field. The originality element that we undertake is to achieve a descriptive summary, which should capture the evolution and relevance of corporate finance theories. The references we used to define the architecture of this study were as follows: the temporal benchmark (focusing on temporal evolution) and the content benchmark (focusing on new contributions in the area of corporate finance theory). As regards the methodology employed, our research included the following steps: a) identifying the evolving aspects of corporate finance theories; b) presenting personal opinions on the development of the proposed theories; and c) formulating conclusions, presenting the limits of the research and identifying prospects for continuing the research.

In light of the fact that research in the field has expanded considerably over the years, we would like to note that, for the purposes of this study, we aimed to provide a selection of the most relevant research; hence, the study does not claim to be exhaustive.

2. Milestones in research on specific issues

The debates on the structure of corporate finance were pioneered by Modigliani and Miller (1958). They formulated two statements with major echoes in subsequent research: *the market value of a firm is independent of its capital structure and of its leverage, respectively* (in other words, the debt/equity ratio does not have any impact on the global value of the firm) and *a firm's leverage has no effect on its weighted average cost of capital* (Modigliani and Miller, 1958). The validity of the two statements has been verified only under conditions of predefined assumptions specific to an ideal situation (absence of bankruptcy costs, no corporate income tax, no market imperfections, etc.).

Beyond any issues that may raise criticism, the two proposed (and subsequently validated) statements marked the starting point in founding modern finance. Consequently, financial theory saw new and extensive developments; recognising the existence of shared dimensions, research in the field has been

classified as follows: trade-off theory; pecking order theory agency theory; theories linking capital structure and factor-product markets; market timing theory.

Trade-off theory – also known as the theory of the balance between the dead-weight costs of bankruptcy and the tax shield benefits derived from debt – emerged following criticism levelled at Modigliani and Miller's theorem. The new variables introduced in research included: corporate income tax, interest expense deductions, and costs of financial distress (bankruptcy costs). The theory emphasised the role of tax shield benefits arising from debt financing. Before proceeding to the presentation of the theory, we believe that two clarifications are in order:

– for a levered firm, interest expenses are treated as deductible expenses (in part or fully, according to the specific tax regulations); an increase in leverage, under circumstances in which the firm is unable to take advantage of interest expense deductions may cancel out the tax shield benefit; on the other hand, firms with a higher level of leverage are more exposed to the risk of financial distress (i.e. bankruptcy risk); up to a certain debt ceiling, such risks remain negligible, yet further leverage may considerably increase risk;

– the cost of financial distress consists in the losses incurred by a firm which was declared bankrupt or faces major challenges such as declining sales, reduced output capacity or asset sell-offs below book value; such situations involve, on the one hand, *direct costs* (legal and administrative expenses, wearing out and obsolescence), and on the other, *indirect expenses* (ineffective management actions and effects of investors', suppliers' and citizens' attitude); in order to rescue the firm, the decisions made have only a short-term positive impact (asset sales below their book value – to raise cash; cutting production expenses disregarding the implications on the quality of products); in the long term, such decisions lead to a decline in the market value of the firm.

The classical version of trade-off theory was formulated by A. Kraus and R.H. Litzenberger (1973); it states that the optimal leverage level reflects a trade-off between the tax shield benefits of debt and the bankruptcy costs. The two proponents of the theory showed that, for a specific period (one year, for instance), the market value of a levered firm is equal to the market value of an unlevered firm, to which is added the present value of the tax shield of debt less the present value of bankruptcy costs.

Subsequently, S. Myers (1984) pointed out that a firm operating under the assumptions of trade-off theory sets a target leverage ratio that it aims to achieve (hence also aiming for a target/optimal financial structure); the target leverage ratio can be determined by balancing the dead-weight costs of bankruptcy with the tax deductions on interest earnings.

Further contributions to the development of the theory were made by J. Scott (1977), who recognises that higher leverage increases the risk of bankruptcy and financial distress and argues that the theory is applicable to large firms that are able to generate higher earnings. On the other hand, R. Pettit and R. Singer (1985) stated that trade-off theory applies to a lesser extent to small firms, which are rather unlikely to have considerable earnings.

Continuing the research on the maximisation of the firm's value by means of gradual debt financing, two surrogate theories emerged, i.e. static trade off theory and dynamic trade off theory. The first theory postulates that firms increase their leverage up to the point where the utility of an additional unit of debt is equal to the cost of debt, including the costs incurred due to a greater probability of financial distress (linked to rising debt levels). As a result, firms strive to reach the optimal static point, known as the target capital structure (Bradley et. all, 1984).

The second surrogate theory admits that the financial structure is adjusted over time, depending on changes in exogenous and endogenous factors. Of key importance are the research works which have focused on: a) dynamic capital structure choice in the presence of transaction costs (Fischer et. al, 1989), b) developing a dynamic model based on the contingent claims method (Ju et. al, 2005), c) factoring in the sudden fluctuations of the market value of equity yields (Leary and Roberts, 2005), d) adjusting the size of investment projects according to the funding source – internal or external financing (Bris and Welch, 2007).

Aggregating the outcomes of research in the field, M. Frank and V. Goyal (2005) indicate that the target leverage ratio can be reached in two phases: a) *the static trade-off phase* during which the firm operates under the assumptions of the trade-off theory for a definite period of time, e.g. one year; b) *dynamic trade-off phase* which allows successive adjustment steps in order for the firm to gradually move towards the target debt ratio.

As a final development, trade-off theory postulates that a firm will raise debt financing up to the point when the marginal value of the tax shield benefit of debt is balanced by the increase in the present value of bankruptcy costs (Brealey et. al, 2006; Myers, 2001).

Agency theory established by M. Jensen and W. Meckling (1976) was predicated on the assumption that the previously described theories are implausible on the theoretical level and impossible to test empirically. The new vision underlying the research argues that there is an agency relationship between shareholders and managers; thus, managers – serving as shareholders' agents – are required to act in the shareholders' best interests. However, the managers' and shareholders' interests may not always converge and managers may focus on a range of personal benefits (higher compensation, additional incentives, job security and sometimes securing assets or cash flows). Although shareholders may deter such value transfers (by putting in place supervision, monitoring and control mechanisms), the absolute monitoring of managements remains an unattainable ideal. Moreover, such mechanisms generate a range of related costs that not only cause a decline in the firm's revenue but also influence its capital structure.

The founders of the theory (Jensen and Meckling, 1976) showed that the optimal capital structure is the result of a trade-off between benefits (management discipline) and agency costs in the context of increased debt financing (as shareholders taken on additional risks).

Subsequent research conducted by M. Harris and A. Raviv (1990) highlighted that diverging interests of managers and shareholders may also arise due to disagreements on the decision to continue the firm's current operations. The authors showed that whereas shareholders (and debt-holders) will opt for liquidating the firm when cash flows are no longer sufficient, managers would always choose to continue the firm's operations. In summary, the two researchers showed that:

– leverage is *positively correlated* with firm value, default probability, free cash flow and managerial reputation;

– leverage is *negatively correlated* with the extent of growth opportunities and with the probability of reorganisation following default.

Furthermore, analysing the issues in terms of the size of the firm, it has been shown that in the case of smaller businesses, the conflicting interests of equity holders and debt holders can be particularly severe; this is due to the fact that most managers of small firms are also the owners of the firms (which translates in zero or very low agency costs). In such situations, lenders may require additional collateral (Ang, 1992). As a result, the structure of the firm's assets is examined in direct correlation with the costs entailed by possible financial distress; if a firm invests mainly in tangible assets (land and fixed assets) the potential costs incurred due to financial distress will be lower; conversely, a firm focused primarily on investments in intangible assets will bear higher costs induced by potential financial distress.

Another observed aspect is that the capital structure is determined by the conflicts between the interests of the firm's inside investors and those of outside investors (Stulz, 1990), as managers choose to invest all the available internal funds, relegating debt financing to a secondary role.

Later developments, viewing the firm as a heterogeneous set of interests, have shown that the source of inter-agent conflicts is the separation of management and finance and of ownership and control, respectively. From this perspective, the capital structure is significantly influenced by the existence and operation of corporate governance mechanisms. Although most of the research in the field has examined conditions in developed countries, explorations have also targeted developing countries and countries undergoing transition, in which corporate governance mechanisms have been shown to be virtually non-existent.

Pecking order theory can be traced back to research by Donaldson (1961) that asserted that *the order of financing sources takes precedence over their weight* (the claim was based on an exhaustive examination of how American firms establish the source of their capital). The traditional version of the theory is premised on the assumption that the firm cannot set a target debt-to-value ratio. Myers (1984) introduces an extended version of the theory where asymmetric information available to managers and investors causes adverse costs of selection (and determines the pecking order in financing new projects).

The theory later developed as an alternative to trade-off theory (Myers and Majluf, 1984). The preference for internal financing, followed by debt financing and equity issuance as a last resort, represents the "pecking order of financing" new

projects, as firms recur to self-financing under asymmetric information conditions. The novelty of the theory lies in incorporating information asymmetry, as managers rather than outside investors have preferential access to information on the state of the firm. The assumptions underlying the architecture of the theory are the following: the capital markets are perfect; there are no transaction costs; the market value of shares is dependent on information available to the market; the firm possesses investment opportunities for which it must select financing resources. Based on these assumptions, the theory posits that the firm will prefer internal financing and that, should external resources be necessary, it will select the appropriate financing methods based on the risk level involved.

Assuming that investors do not know the actual value of assets and of the firm's development opportunities, they are unable to accurately evaluate the shares issued by the firm to finance its new investments. More precisely, if firms are obliged to finance new investment projects by issuing equity, the markdowns on share prices may be so high that new investors will gain higher earnings than the net present value of the new project, resulting in net loss for current shareholders; consequently, even though the net present value of the project is positive, the project will be abandoned; underinvestment may be avoided by using other financing resources which are not marked down sharply by the market (e. g. internal funds, risk-free loans and even relatively risky loans). Hence, according to pecking order theory, the firm prefers to fund its investments first by internal resources, then by low-risk borrowed capital, and, only as a last resort, by equity.

The careful examination of the models introduced by the pecking order theory (starting from the objectives undertaken by management) has enabled their classification on two levels:

a) theories focused either on the maximization of the wealth of certain firm insiders (e.g. current shareholders) (Myers and Majluf, 1984; Narayanan, 1988), or on maximizing the firm's overall wealth (indirectly favouring certain firm partners) (Myers, 2001);

b) theories aimed at reducing contract costs in order to maximise the firm's value (Cornell and Shapiro, 1987; Fama, 1990; Williamson, 1988).

Subsequent research (Halov and Heider, 2006) showed that larger firms face smaller costs of adverse selection than smaller firms do (in the context of risky debt). Arguing that smaller firms are less “transparent”, M. Psillaki (1995) showed that they tend to bear higher costs due to information asymmetry. Moreover, starting from the assumption that the size of a firm is determined based on the financial statements it files regularly, R. Pettit and R. Singer (1985) argued that smaller businesses face greater information asymmetries.

More recently, J. Chen (2004) and N. Delcoure (2007) have developed a “new pecking order theory”, focused on developed economies, which states that in financing their investments, business entities resort to retained earnings, equity capital and, as a last resort, long-term debt.

Theories based on the linkages between capital structure and the firm's strategy are founded on two classes of models which account for the structure of capital based on the determinants of the firm's organisation and industrial strategy. *The first model* deals with the relationship between capital structure and the growth strategy on the market for goods and services. *The second model* uses the relationship between capital structure and the characteristics of inputs and outputs in the production process.

This approach is grounded on the influence of debt over strategic variables and on the relationships between suppliers and consumers. The strategic variables are *price* and *quantity*. The strategy of the firm is established in such a way as to influence the attitude of competitors. Hence, capital structure affects the strategy and performance of any business in the context of market equilibrium. With regard to the characteristics of the production process, the capital structure may have an effect on the availability of a particular product or service and on the bargaining process between managers and suppliers.

J.A. Brander and T.R. Lewis (1986) show that in a competitive economy, *oligopolies are tempted to take on more debt than monopolies.* J. Glazer (1989) confirms this finding and highlights that debt tends to be long term. Furthermore, it has been shown that tacit collusion facilitates the reduction of debt and *debt capacity increases with the elasticity of demand.*

From a theoretical standpoint, the models based on organisational and industrial considerations provide highly interesting findings to inform the choice of capital structure. The models describe the links between capital structure and characteristics of the offer, demand and influence of competition in a sector or industry. The main outcomes of the debates on these issues have revealed that leverage increases:

– when the product produced by the firm is not unique and does not require special knowledge (Titman, 1984; Titman and Wessels, 1988);
– with the elasticity of demand for the product (Maksimovic, 1988);
– when workers have easily transferrable skills (Sarig, 1998);
– when the firms are not focused on the reputation for producing high quality products.

The theories linking the firm's capital structure and factor-product markets (products and commodities) have incorporated new dimensions in the research: the role of non-financial stakeholders in designing the corporate finance structure („the stakeholder theory"), industrial organisation and the firms' strategic management. A. Istaitieh and J.M. Rodriguez-Fernandez (2006) have highlighted the existence of mutual influences between production factors and corporate financial decisions; the two authors also emphasised linkages between financial structure and the degree of industrial concentration (i.e. horizontal/vertical integration) and between the financial structure and competition policy.

Theoretical research in the field has also shown that there are conflicts of interest not only between the firm's insiders (managers and shareholders, for instance) but also between outside agents (such as competitors and consumers).

M. Campello (2003) cautions that only a few of the theoretical formulations have been empirically examined, and their direct testing is a difficult task, as it is hard to establish whether changes in the area of competition were in any way influenced by a firm's financing decisions. Assuming that the duration, scope and consequences of macroeconomic shocks cannot be totally anticipated by market participants, M. Campello analysed the sensitivity of sales increases to the changes in leverage of various industries. He concluded that the financial structure could affect the firm's performance on the product markets, as the financing methods leave their imprint on the firms' competitive capacity.

Theories based on the linkages between firms' capital structure and the market for corporate control. The relationship between capital structure and the takeover activity has been explored in several studies. Research has shown that incumbent managers can manipulate a public bid and can influence the probability of success of a takeover bid by influencing the equity stake that they hold in the firm (Harris and Raviv, 1988). To the extent that the managers of the acquiring firm and of the target firm have different competences, the firm value depends on the level of resistance by the incumbent manager in response to the takeover attempt.

The incumbent manager's equity stake in the target firm defines his behaviour in the following three situation: the bidder acquires the firm easily; the bidder maintains and consolidates control over the target; the takeover bid is subject to the vote of passive investors.

Consequently, the incumbent manager must balance the earnings from enabling the takeover attempt and the personal loss incurred if the bidder acquires control of the firm. The interest of the incumbent manager is determined by the equity stake in the firm, therefore indirectly by the capital structure of the firm that the manager represents. The study of compromise has also been the focus of analyses of capital structure.

R. Stulz (1988) examined the capacity of shareholders to influence the outcome of a takeover bid by modifying the holdings of the bidding firm in the target firm. In particular, when the equity stake held by the bidder's managers increases, the takeover premium increases, yet the probability of success of the takeover attempt declines. As the higher equity stake of the bidder's management in the target increases the control premium and reduces the likelihood of success of the takeover bid, R. Stulz shows that the target firm presents an optimal debt-to-equity ratio, which enables the maximisation of the value of shares held by outside investors. The author observes that the takeover premium is positively related to the debt-to-equity ratio. To summarise, the main findings on the linkages of capital structure and the market for corporate control are the following: a) the vast majority of target firms increase the share of debt and not the share of equity; this results in an increase of the stock market value of own equity; b) the target firms of a failed takeover bid register more debt than

the target firms of a successful takeover attempt; c) the takeover premium increases with the debt share in the capital of the target firm. These findings rely on the models that use the effects of short-term variables on capital structure after a takeover bid has been announced.

Market timing theory is a more recent development and refers to the firms' practice of issuing equity at a high price and repurchasing it at a lower price. The theory is premised on the assumption that managers base their financing decision on conditions on the capital markets. If conditions on the market are unfavourable, managers may consider delaying investments. Such conditions preclude the idea of the existence of a target capital structure. Rather, the corporate capital structure appears as the aggregate of managers' efforts to synchronise with the capital market (Baker and Wurgler, 2002). The market-to-book ratio has been used in order to assess the market timing opportunities. The conclusion of research is that the firms' preference to issue more equity than debt when the market value of equity is high exerts a long-term positive influence on capital structure. Equity issuance – when the market valuation of equity is high – is typical of unlevered firms; conversely, levered firms issue shares when their market value is low. The theory attributes a major role to managers who must time the financing behaviour of the firm to the market in order to act in the interest of existing shareholders by issuing overvalued securities to new shareholders (Hovakimian et al., 2001; Huang and Ritter, 2005). Abandoning his earlier claims, Hovakimian (2006) showed that in the long run market timing does not exert significant effects on firms' capital structure.

3. Reflections on the formulated theories

The issue of firms' financing has been and continues to be one of the most hotly debated topics for a variety of analysts/researchers, not necessarily finance experts (for instance mathematicians, psychologists, economists). Their works have focused on the optimal mix of the two sources of financing (internal and external), in order to secure the success of major objectives undertaken by management; hence, the financing decision – one of the key decisions in financial management – emerges as a genuine challenge. Most of the theories formulated so far have built analytical frameworks for grounding, understanding and implementing firms' capital structure policies. However, the theories developed have certain limitations, which have posed challenges for further research and experienced varied and wide-ranging debates, with key concepts re-emerging in novel forms.

Without intending to subjugate reason to the principle of searching unity in diversity, we acknowledge that the individual nature of each research in the field of corporate finance has been shaped by how it dealt with and incorporated the following stages:

a) formulating the assumptions – defining the institutional framework and behaviour of all stakeholders;

b) modelling, i.e. describing economic process by means of equations; models are constantly adjusting to economic realities, strengthening the capacity to provide accurate forecasts;

c) empirical verification of the various applied variables;

d) validating/testing the model in various environments.

In order highlight the evolution of the theories under review, we will concentrate on the questions that prompted the research (related variously to the assumptions on which theories were predicated, the incorporation of new variables in analyses, the refutation of previously proposed ideas, transformations in the global society, or to the opportunities to extrapolate research findings, etc.). Beyond the diversity of motives behind the research, one must acknowledge that the research efforts ultimately had a noble goal: to contribute to theoretical and practical research.

- In terms of architecture, each theory was predicated on set of assumptions. Given that these assumptions were covered in the previous section (devoted to the overview of corporate finance theories), we shall not reiterate them. Still, as a corollary to the earlier presentation, we believe it is crucial to emphasise that their actual formulation was not intended to be framed strictly in a realistic vision, but rather in a perspective that should enable the development of formalised representation of the operation of the analysed financial system. In numerical terms, there have been intentions to curb restrictive assumptions (in order to be closer to reality) and to further diversify them (to more accurately describe the context which fostered the emergence of the theory).
- Continuing the analysis of the architectural dimension of the theories, we may observe that each theory has emerged in accordance with a set of specific variables, which have become increasingly diverse over time. Examining retrospectively the origin of the theories, the following variables come into play: the debt-to-equity ratio, the cost of capital, corporate income tax rates, interest expense deductions, cost of financial distress (including bankruptcy costs), information asymmetry and related costs, agency relationships and related costs, corporate strategy (dealing with: the market for goods and services; product factor market; inputs and outputs in the production system; takeover bids), market timing, etc.
- As evidenced by the overview of theories above, one of the drivers of research in the field was the refutation of previously formulated ideas (for example, trade-off theory emerged as a result of criticism levelled at Modigliani and Miller's models; pecking order theory itself was proposed as an alternative to the trade-off theory; furthermore, it was argued that pecking order theory lacked theoretical grounding; and agency theory emerged on the assumption that the previously proposed theories were unreliable theoretically and impossible to test empirically; and so on).

The theories under review have approached in distinct manner the issues related to the firm's financing policy (either stressing or downplaying the importance of debt capital). *Static trade off theory* defines optimal capital structure as a trade-off between the tax shield benefits derived from debt and the costs of financial distress;

the optimal level is achieved when the marginal present value of the tax shield benefit of additional debt is equal to the marginal present value of the costs of financial distress related to taking on additional debt. *Agency theory* posits that optimal capital structure may result from minimising the costs generated by the conflicts of interest between the firm's various stakeholders. On the other hand, *pecking order theory* suggests that no optimal capital structure exists; proponents of the theory argue that firms resort to debt financing only when earnings are unsatisfactory and only as a last resort do they opt for risky external financing. Market timing theory does not support the idea of the existence of a target capital structure, claiming that capital structure at any given moment is the aggregate of management's attempts to synchronise with the market.

Taking into account these positions, it was later acknowledged that there exists no generally applicable theory of capital structure (as financing is conditional on individual/particular aspects, making difficult the proposal of a single solution), but several conditional theories exist (Myers, 2001). Furthermore, we emphasise that no decisive test has been conducted that allows the (unconditional) assessment of any financing theory.

In retrospect, we can argue that the solidity of a theory that has been subjected to the filter of critical rationalism was derived from its resistance to attempts to refute it; nevertheless, resistance to criticism has not been the unique way of validating a theory; progress in research has not been confined to negative heuristics (based on negations, rejections, criticisms), rather, positive heuristics has brought clarifications and improvements in financial theory (subsequent theories have incorporated new variables in the analysis – as shown above).

- Transformations in the global society have reoriented (and even stimulated) new research on the foundations of financial theory. A key aspect has been the orientation of research towards the implications of macroeconomic conditions on the selection of a particular financing mix. For example, the current crises have determined a reassessment of risks entailed by the various forms of financing and that a firm may take on. The shifts in the structure of corporate financing and their impact on risks have been investigated by:

– H. Minsky (1992a) who, starting from the management of funding sources, on the one hand, and the use of funds in terms of cash flows, classified firms as follows: *hedge units; speculative units; Ponzi units*;

– D. Foley (2003) who analysed financial fragility not only of firms but of national economies, viewed as a collection of firms or as a model where the firms of a nation are averaged into one representative firm; he relies on the Minskian criteria to account for the three financial situations of firms and national economies as they undergo the three *stages of the business cycle:* recovery, boom, bust;

– R. Dieci et. al (2005), S. Sordi and A. Vercelli (2006, 2010) and A. Vercelli (2009) reinterpret Minsky's financial instability hypothesis (1992b), shifting the focus from the so-called moments to dynamic processes, by analysing net financial flows

and the liquidity and solvency indexes expressed as ratios at the level of single and aggregate business units;

– Brezeanu and Al Essawi (2011), who acknowledge that risk management instruments become essential in the context of capital markets integration, because increased risk generates vulnerability.

These new trajectories indicate the fact that, amid the increasing impact of macroeconomic factors on the financial structure of firms, the latter must adopt a more prudent financial policy, which should support risk minimisation to ensure easier control over financial vulnerability.

Sustainable development has been another novel and radical challenge facing the human society at the turn of the third millennium. Linked to this background issue, an operational problem emerges: financing sustainable economic activity. Thus, in financial matters, the interest has shifted from optimality in favour of sustainability concerns. Analyses (Dinga, 2009) have dealt both with the sustainability of financing sources and with designing a sustainable financing portfolio, which should incorporate various financing sources, to enable the decision-maker to choose an appropriate financing package (in accordance with the economic and financial conditions). Along the same lines, A. Sen (2010), recognising that debt financing is neither stable nor sustainable, argues that the global economic and financial system needs a more prudent financing approach that should bolster a much more stable and sustainable, yet more anaemic, growth rate.

- As already shown above, another element that has driven research in the field has been the extent to which outcomes could be extrapolated. Originally, studies in corporate finance were centred on the large companies in developed economies. Subsequently, theoretical and empirical research on financing structure targeted the large companies listed on the stock exchange in industrialised and developing economies (without omitting the specific features of transition economies or of emerging markets). As challenges grew and the idea of merely generalising the outcomes of research was rejected, new research geared towards smaller, unlisted firms (which do not enjoy the same level of access to financial markets). This new level of research first included small and medium-sized enterprises in a single country and later expanded to encompass explorations of conditions in several countries. The next step included combined and comparative research. More recent research efforts have explored linkages between financial structure and the financial traditions of various countries, reflecting the fact that the US and UK economies capital market-oriented, while France, Germany and Japan are bank-oriented.

4. Conclusions

By examining the formulated theories, pointing out the evolving aspects and identifying the architectural dimensions specific to each theory, we are able to argue that the sphere of research underpinning the corporate finance theories has continuously expanded owing to:

– interdisciplinary analyses which have enabled the integration of finance in strategic management, in marketing, in human resource management, etc. We are witnessing in fact a dismantling of subject boundaries in economic research.

– the incorporation in the analysis of an increasingly greater number of variables, as required by the need to transcend the firm's exclusive objectives and to focus on the interests of shareholders, managers, lenders, employees, competitors, and consumers; new explorations of the psychological and sociological behaviour of the aforementioned stakeholders is justified to account for the rationality of their attitude towards the firm.

– the increasingly important role of mathematics, in general, and of econometrics, in particular, in solving the firm's financial problems (by facilitating modelling);

– the use of computers, in general, and of various software, in particular, which have enabled empirical verification and statistical validation of the various theories proposed.

In relation to the first idea, we must also stress that we are witnessing a tumultuous (r)evolution in the field of financial theory; the drivers that prompted research have been extremely diverse and have focused on: assumptions underlying the formulation of the theories; the variables around which the research developed; the veracity and viability of previously formulated ideas; transformations at the level of the global society; the expansion of interdisciplinary research, etc.

Research in the field has oriented towards new directions, by questioning the reliability of previously formulated theories and by incorporating increasingly more variables, aiming to account for a highly complex reality and also to stake out a key position in ongoing debates. It is worth noting that this evolution has not taken a unidirectional path, as reversals have also occurred in ongoing debates. The time gaps between the launch of a theory, its empirical verification/validation and the actual testing in particular economies or industries also contributed to expanding the scope of specific research. Nevertheless, beyond the particular aspects of the evolution of financial theory, one can observe the existence of a constant: the method underlying the various financial theories has been hypothetical-deductive.

After four decades of turmoil in terms of the underlying development of corporate finance theories, by embracing S. Myers' postulate that no theory is universally valid and by accepting the claim that there is no reason that would justify the emergence of such a theory, research in the field has reoriented towards the area of empirical analyses, which strive to provide empirical evidence in support of previously formulated theories. Consequently, we have witnessed a shift of focus from developing the theoretical level to the level of empirical analyses, leading to a considerable expansion of the area of applicability of econometric models (to enable a more comprehensive understanding of the meaning and intensity of influences).

Amid the transformations that have marked the economic and social life after the year 2007, we have noticed a reorientation of research on corporate finance: the impact of debt financing on the firm's financial vulnerability. The old challenge (the

ratio of debt in the overall financing of the firm) has been abandoned, being replaced by a new challenge (the firm's financial vulnerabilities); the new emerging trajectory has been the research focused on the real effects of financing in the context of the new micro and macroeconomic data.

The final conclusion that emerges is that the evolution of corporate finance theories bears the imprint of the dominant trend in contemporary science – the design of new theories that overturn tradition (thus effecting the transition from the classical theory of the irrelevance of capital structure to the theory of its relevance or the shift from the maximisation of the positive effects of leverage to a more prudent financing, supportive of growth, admittedly more moderate, yet at the same time more stable and sustainable.

Whereas research in the field has expanded over the years, we would like to emphasise that, for the purposes of this undertaking, we took into consideration a selection of the most representative research; consequently, we recognise that the study does not claim to be exhaustive. Furthermore, we acknowledge that the rather sterile presentation of theories (highlighting their founders and the foremost contributions) may be blamed for incomplete scientific grounding; the actual reason is, however, different, i.e. lack of space. Beyond these limitations, we would like to underline that the opinions formulated herein remain representative. The viability of the formulated ideas is further supported by the fact that the paper can serve as a starting point for conducting future, more extensive research within the framework of a continuous training programme for elite researchers.

Acknowledgements

This work was supported by the project "Post-Doctoral Studies in Economics: training program for elite researchers – SPODE" co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.

References

Ang, J. (1992), "On the theory of finance for privately held firms", *Journal of Small Business Finance*, Vol. 1, No. 3, pp. 185-203

Baker, M., Wurgler, J. (2002), "Market timing and capital structure", *Journal of Finance,* Vol. LVII, No.1, pp. 1-32

Bradley, M., Jarrel, G.A., Han Kim, E. (1984), "On the existence of an optimal capital structure: Theory and evidence", *The Journal of Finance*, Vol. 39, No. 3, pp. 857-80

Brander, J.A., Lewis, T.R. (1986), "Oligopoly and financial structure: the limited liability effect", *American Economic Review*, Vol. 76, No. 5, pp. 956-970

Brealey, R.A., Myers, S.C., Allen, F. (2006), *Principles of Corporate Finance*, 8th edition, McGraw Hill, New York

Brezeanu, P., Al Essawi (2011), "The relation between financial management and corporate governance: analytical approach at the level of the risk management strategies", *Management & Marketing,* Vol. 6, No. 1, pp. 151-162

Bris, A., Welch, I. (2007), "The optimal concentration of creditors", *The Journal of Finance,* Vol. 60, No. 5, pp. 2193-2212

Campello, M. (2003), "Capital structure and product markets interactions: Evidence from business cycles", *Journal of Financial Economics*, Vol. 68, No. 3, pp. 353-378

Chen, J. (2004), "Determinants of capital structure of Chinese-listed companies", *Journal of Business Research*, Vol. 57, No. 12, pp. 1341-1351

Cornell, B., Shapiro, A.C. (1987) "Corporate stakeholders and corporate finance", *Financial Management*, Vol. 16, pp. 5-14

Delcoure, N. (2007), "The determinants of capital structure in transitional economies", *International Review of Economics and Finance*, Vol. 16, No. 3, pp. 400-415

Dieci, R., Sordi, S., Vercelli, A. (2005), "Financial Fragility and Complex Dynamics: Analysing the Impact of Stabilizing Policy Measures", *International Conference on Policy Modeling* (EcoMod 2005), Istanbul, 29 June – 1 July 2005

Dinga, E. (2009), *Studii de economie*, Editura Economică, Bucureşti

Donaldson, G. (1961), *Corporate Debt Capacity: A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity*, Beard Books, Washington

Fama, E. (1990), "Term-structure forecasts of interest rates, inflation, and real returns", *Journal of Monetary Economics*, Vol. 25, No. 1, pp. 59-76

Fischer, E. O., Heinkel, R., Zechner, J. (1989), „Dynamic Capital Structure Choice: Theory and Tests", *Journal of Finance*, Vol. 44, No.1, pp. 19-40

Foley, D. (2003), *Financial Fragility in Developing Economies,* in Dutt Amitava, Jaime Ros (eds.), *Development Economics and Structuralist Macroeconomics: Essays in Honour of Lance Taylor*, Edward Elgar Publishing, New York

Frank, M., Goyal, V. (2005), "Trade-off and pecking order theories of debt", *The Handbook of Empirical Corporate Finance,* Elsevier Science

Glazer, J. (1989), "The strategic effect of long-term debt in imperfect competition", *Journal of Economic Theory*, Vol. 62, No. 2, pp. 428-443

Halov, N., Heider, F. (2006), "*Capital structure, risk and asymmetric information*", SSRN Working Paper, EFA 2004, Maastricht, available at http://ssrn.com/abstract=566443 (accessed February 20, 2012)

Harris, M., Raviv, A. (1990), "Capital structure and the informational role of debt", *Journal of Finance,* Vol. 45, No. 2, pp. 321-349

Harris, M., Raviv, A. (1988), "Corporate control contests and capital structure", *Journal of Financial Economics,* Vol. 20, No. 1-2, pp. 55-86

Hovakimian, A., Opler, T., Titman, S. (2001), "The debt-equity choice", *Journal of Financial and Quantitative Analysis*, Vol. 36, No. 1, pp. 1-24

Hovakimian, A. (2006), "Are observed capital structures determined by equity market timing?", *Journal of Financial and Quantitative Analysis*, Vol. 41, No. 1, pp. 221-243

Huang, R., Ritter, J. (2005), "*Testing the market timing theory of capital structure"*, available at http://bear.warrington.ufl.edu/ritter/TestingOct2805%20(1).pdf (accessed January 15, 2012)

Istaitieh, A., Rodriguez-Fernandez, J. M. (2002), "*Stakeholder theory, market structure, and firm's capital structure: an empirical evidence*", available at SSRN: http://ssrn.com/abstract=413661 (accessed February 20, 2012)

Istaitieh, A., Rodriguez-Fernandez, J.M. (2006), "Factor-products market and firm's capital structure: a literature review", *Review of Financial Economics,* Vol. 15, No. 1, pp. 49-75

Jensen, M., Meckling, W. (1976), "Theory of the firm: managerial behaviour, agency costs and capital structure", *Journal of Financial Economics,* Vol. 3, No. 4, pp. 305-360

Ju, N., Parrino, R., Poteshman, A.M, Weisbach, M.S. (2005), "Horses and rabbits? Trade-off theory and optimal capital structure", *Journal of Financial and Quantitative Analysis*, Vol. 40, No. 2, pp. 259-281

Kim, E. (1978), "A mean-variance theory of optimal capital structure and corporate debt capacity", *Journal of Finance*, Vol. 33, No. 1, pp. 45-63

Kraus, A., Litzenberger, R.H. (1973), "A state-preference model of optimal financial leverage", *Journal of Finance*, Vol. 28, No.4, pp. 911-922

Leary, M.T., Roberts, M.R. (2005), "Do firms rebalance their capital structures?", *14th Annual Utah Winter Finance Conference*; Tuck Contemporary Corporate Finance Issues III Conference Paper, available at SSRN: http://ssrn.com/abstract=571002 (accessed February 21, 2012)

Maksimovic, V. (1988), "Capital structure in repeated industries", *Journal of Economics*, Vol. 19, No. 3, pp. 389-407

Minsky, H. (1992a), "The Capital Development of the Economy and the Structure of Financial Institutions", *The Jerome Levy Economics Institute Working Paper No. 72*, available at SSRN: http://ssrn.com/abstract=161469 (accessed February 21, 2012)

Minsky, H. (1992b), "The Financial Instability Hypothesis*", The Jerome Levy Economics Institute of Bard College, Working Papers no. 74*, available at SSRN: http://ssrn.com/abstract=161024 (accessed February 23, 2012)

Modigliani, F., Miller, M. (1958), "The cost of capital, corporation finance and theory of investment", *American Economic Review,* Vol. XLVIII, No. 3, pp. 261-297

Myers, S. (1977), "Determinants of corporate borrowing", *Journal of Financial Economics,* Vol. 5, No. 2, pp. 147–175

Myers, S. (1984), "The capital structure puzzle", *Journal of Finance,* Vol. 39, No. 3, pp. 575-592

Myers, S. (2001), "Capital structure", *Journal of Economic Perspectives*, Vol. 15, No. 2, pp. 81-102

Myers S., Majluf, N. (1984), "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, Vol. 13, No. 2, pp. 187-221

Narayanan, M. P. (1988) "Managerial incentives for short-term result", *Journal of Finance,* Vol. 40, No. 5, pp. 1469−1484

Pettit, R., Singer, R. (1985), "Small business finance: a research agenda", *Financial Management*, Vol. 14, No. 3, pp. 47-60

Psillaki, M. (1995), "Credit rationing and small and medium sized firms: a tentative of linkage", *Revue International PME*, Vol. 8, No. 3-4, pp. 67-90

Sarig, O.H. (1998), "The effect of leverage on bargaining with corporation", *Financial Review*, Vol. 33, No. 1, pp. 1-16

Scott, J. (1977), "Bankruptcy, secured debt and optimal capital structure", *Journal of Finance,* Vol. 32, No.1, pp. 1-19

Scott, J. (1976), "A theory of optimal capital structure", *Bell Journal of Economics,* Vol. 7, No.1, pp. 33–54

Sen, A. (2010), "A without debt and strong financial structure", *International Research of Finance and Economics*, No. 59, pp. 77-85

Sordi, S., Vercelli, A. (2006), "Financial fragility and economic fluctuations", *Journal of Economic Behavior Organization*, Vol. 61, No. 4, pp. 543-561

Sordi, S., Vercelli, A. (2010), *Heterogeneous Expectations and Financial Instability in a Pure Finance Economy,* Department of Political Economy, Finance and Development, University of Siena – Italy

Stulz, R. (1988), "Managerial Control of Voting Rights. Financing Policies and the Market for Corporate Control", *Journal of Financial Economics,* Vol. 20, No. 1-2, pp. 25-54

Stulz, R. (1990), "Managerial discretion and optimal financing policies", *Journal of Financial Economics,* Vol. 26, No. 1, pp. 3-27

Titman, S. (1984), "The effect of capital structure on a firm's liquidation decision", *Journal of Financial Economics*, Vol. 13, No.1, pp. 137-151

Titman, S., Wessels, R. (1988), "The determinants of capital structure choice", *Journal of Finance,* Vol. 43, No. 1, pp. 1-19

Vercelli, A. (2009), "A Perspective on Minsky Moments: The Care of the Financial Instability Hypothesis in Light of the Subprime Crises*", The Levy Economics Institute of Bard College, Working Paper no. 579*, available at http://www.levyinstitute.org/pubs/wp_579.pdf (accessed February 22, 2012)

Wiliamson, S. (1988), "Liquidity, banking and bank failures", *International Economic Review,* Vol. 29, No. 1, pp. 25-43

About the author

Mihaela Brînduşa TUDOSE, associate professor, teaches Corporate finance and Public finance. She authored 5 books, among which *Management of company capital* (2006), *Finance* (2008). She holds a PhD in Finance (2005) from "Al.I. Cuza" University of Iaşi, Romania. Currently, she is involved in a post-doctoral fellowship program, coordinated by Romanian Academy, on the topic of real effects of financing and risk management during the economic crisis.